

Reference: CSA-101-B

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Henry Colombo and Bernard M. Licata
Serial Number; 10/039,805
Filing Date: October 19, 2001
Examiner/Art Group Unit: Dunwoody, Aaron M. / 3679
Title: METHOD AND APPARATUS FOR FORMING
LEAK-PROOF COUPLING FOR BEVERAGE
DISTRIBUTION SYSTEM

APPEAL BRIEF

3

MAIL STOP APPEAL BRIEFS – PATENTS

Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Please enter the following Appeal Brief in the Notice of Appeal filed April 12, 2005. This appeal is taken from the final rejection of claims 12 – 14, 25 – 27, and 29 – 30, dated January 12, 2005, and from the Examiner's Advisory Actions dated April 5, 2005 and April 25, 2005.

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06/16/2005 EFLDRES 00000042 250115
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REAL PARTY IN INTEREST

The real parties in interest are Henry Colombo and Bernard M. Licata.

RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

STATUS OF CLAIMS

Claims 12-14, 25-27 and 29-30 are pending in the case. Claims 1-11, 15-24 and 28 were previously withdrawn.

STATUS OF AMENDMENT

An Amendment After Final rejection was submitted on March 14, 2005 and was not entered by the Examiner. A Supplemental Amendment After Final was submitted on April 12, 2005 and was also not entered by the Examiner.

SUMMARY OF THE INVENTION

The present invention as described in the application and shown in the drawings, especially Figures 2, 3, 8D, 8E and 8F, provides for an overhead beverage distribution system 10 extending from a beverage storage area 14 to a beverage dispensing area 16, wherein the beverage storage area 14 is remote from the dispensing area 16. The overhead beverage distribution system 10 includes a series of pipes 18 connected together between the storage beverage area 14 and the dispensing unit 16. The series of pipes 18 are run overhead in or adjacent to the ceiling of an eating and/or drinking establishment. The series of pipes 18 define a chase or channel 20 for housing multiple conduits 22 in one or more trunk lines from the remote beverage storage area 14 to the beverage dispensing area 16. One or more of these trunk lines are snaked through the chase 20 for

encapsulating and housing within the chase 20. The series of pipes 18 are made of metallic and preferably thin aluminum alloy. Between each section of the metallic pipes 18 is a sealed joint 12. The sealed joint 12 includes a sealing tape 28 and a steel clamp 30. Two ends 32 of adjacent pipes which form the sealed joint are cut, rounded, and cleaned and aligned to be abutted in an end-to-end orientation. The surfaces of the ends 32 of the pipes 18 are conditioned and prepared for receiving the adhesive sealing tape 28.

The sealing tape 28 is preferably made from an acrylic polyolefin, or other similar material, foam closed self-substance having a pressure sensitive acrylic or similar material adhesive thereon. The sealing tape has a double-coated (double-sided) having a peel adhesion rating of at least 18 lbs/in. For the application of the present invention, the following attributes of the sealing tape are necessary: a normal tensile strength to aluminum at room temperature of at least 50 lbs/in² and preferably 80-110 lbs/in², should hold 100 grams and preferably 1250 grams at 72° Fahrenheit for 10,000 minutes and at least 500 grams at elevated temperatures up to 150° Fahrenheit. The dynamic sheer is at least 40 lbs/in² and preferably 60 lbs/in² at room temperature with a 1 in² overlap of the sealing tape. the temperature tolerance of the adhesive tape is at least 200° in the short term and 160° in the long term when the tape is supporting 250 grams in static sheer for 10,000 minutes.

The sealing tape is pre-cut and aligned to the butted ends of the pipes. The tape is laid flat and smooth around the outside surface of the joint and overlaps approximately 3/16 inch - 1/4 inch. The tape 28 is applied to the outside of the joint to maintain a smooth interior surface of the chase 20 for easily snaking the trunk lines through the series of pipes 18 and joints 12. A steel coupling 30 is slid over the sealing tape 28 so that the

tongue 88 of the coupling 30 is squarely on the overlap 90 of the tape 28. The steel coupling has clamped ends 89 which are held together by locked washers, nuts, and bolts 92.

ISSUES ON APPEAL

Issue No. 1: Are claims 12-14, 25-27, 29 and 30 unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 5,316,352 by Smith in view of 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data, European patent EP0095915 A1 by Cook and U. S. Patent No. 5,961,154 by Williams, *et al.*?

Examiner Answers: YES

Appellants Answer: NO

GROUPING OF CLAIMS

Issue No. 1: Claims 12-14, 25-26 and 30 rise and fall independently for reasons stated in greater detail below. Claims 27 and 29 rise and fall together.

ARGUMENT

Issue No. 1: Claims 12-14, 25-27, 29 and 30 were rejected under 35 U.S.C. 103(a) as being patentable over U.S. patent 5,316,352, Smith in view of 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data, European patent EP 0095915 A1, Cook, and U. S. patent 5,961,154, Williams, *et al.* The Examiner states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a double-sided adhesive, closed-cell acrylic foam tape and overlap the tape ends, since Smith discloses duct tape and the 3M VMB™

Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data teaches a double-sided adhesive, closed-cell acrylic foam tape which the Examiner alleges could be used in many exterior industrial applications in replacement of duct tape. The Examiner further cites the Cook reference as evidence that it is commonly known in the art to apply a tape having first and second ends forming an overlap over the first end and contacts the first end. Further, the Examiner alleges that it would have been an obvious matter of design choice to fabricate the double-sided adhesive, closed-cell acrylic foam tape precut so that the second end of the present tape overlaps a first end of the precut tape around the pipe ends forming an overlap approximately $3/16'' - 1/4''$, and the coupling having a clamping means as disclosed by Williams positioned over the overlap.

It appears that the Examiner is not considering the claims as a whole and also has not fully considered the Declaration under 37 C.F.R. § 1.132 previously filed with the Amendment dated June 19, 2003 and enclosed as Appendix A, which is also applicable to the current cited references. In the aforementioned Declaration, the Applicant stated that it is critical that the interior is smooth so that there is no obstruction when the bundle of pipe lines are pulled through the conduit. As a result of the Declaration, the Examiner indicated that the declaration overcame the previous rejection of the claims based on Kanao (USPN 5,458,380), and also Shea (USPN 5,505,497). However, now the Examiner is rejecting the claims as being unpatentable over U. S. Patent No. 5,316,352 to Smith and U. S. Patent No. 5,961,154 to Williams *et al.* Neither of these disclosures show or disclose smooth interiors at the joint because Smith discloses grooves for holding annular gaskets 14 and Williams discloses a slip collar in the interior of the pipes. The smooth

interiors at the joint of the present invention are formed by the two pipes abutting each other and the means for sealing the joint being placed on the exterior of the joint.

Regarding U. S. Patent No. 5,316,352 issued to Smith, Smith is related to a pipe coupling for an underground pipe which is non-analogous to the art of sealing an overhead pipe conduit system. A person having ordinary skill in the art would not look to underground pipes when designing an above-ground and suspended conduit system. Underground pipes must be built to withstand being pushed through the ground during installation and the weight of the ground above it. An above-ground conduit system does not require these features. However, even if the Board finds that an underground pipe system is analogous art to an above-ground beverage conduit system, Smith does not show or disclose certain important features required in the claims. Smith offers multiple embodiments of his invention. In Smith, only the embodiments as shown in Figures 8 and 17 show the bell faces 23 in abutting formation as required in the pending claims of the present invention. However, in the embodiments of Figures 8 and 17, a pair of annular gaskets 14 are spaced from the bell faces and positioned within a groove (not numbered) in the interior of the bell faces 23. Further, in Smith (Figures 8 and 17), a nipple pipe 16 is shown within the bell shaped pipe and is sized so that the nipple's unbeveled outer surface extends beyond each gasket in each opposing bell 20. This configuration in Smith ensures the fluid-type seal, even if the nipple 16 is over inserted. (Column 5, Lines 43-46.) Smith only discloses applying tape around the joint to prevent dirt entering the joint. The tape 26 in Smith does not provide a seal. Smith does not disclose positioning tape around the joint of the abutting bell-shaped faces 23 to form the sealed joint. Smith requires an internal gasket 14 to provide the sealed joint. Therefore, Smith teaches away from the present

invention, which requires a smooth interior so that a bundle of beverage lines can be snaked through the smooth interior of the conduit and not get caught on either a gasket 14, the groove for positioning the gasket, or a nipple 16 as shown and disclosed in Smith. The embodiment shown in Figure 5 of Smith does not disclose that the bell faces 23 essentially abut each other as required in the claims of the present invention. Instead, as disclosed in Column 5, Lines 58-61, an annular bearing-ring 26 is provided between the bell mount faces 23 positioned over the nipple 16, and not to the terminal end of another pipe. Smith further states in Lines 64-69 that the rings have an inside diameter dimension and an outside diameter dimension sufficient to form an ample bearing surface between the bell faces. Smith then discloses that a layer of adhesive tape, standard duct tape, is applied around the outside of the joint to prevent dirt from entering the coupling while the pipe is being pushed into place under ground. In another embodiment, as shown in Figures 6 and 7, the bell mouth faces 23 of the pipe are spaced from each other to provide a retaining ring 34 therebetween. In yet another embodiment shown and disclosed in Figure 16, the standard bell face 23 will abut squarely against a bearing face 41 of nipple 16 and not to the terminal end of another pipe. Smith discloses that tape may be applied around the point of the union of nipple 16 and bell faces 23. In each of these aforementioned embodiments, the bell faces 23 do not abut each other. In these embodiments that tape is applied around the outside of the joint strictly to prevent dirt from entering the coupling while the pipe is being pushed into place. There is no suggestion that the tape is used to provide a seal between the two adjoining pipes to maintain them together in the overhead beverage conduit. The sealed joint in Smith is formed internally of the pipes 12 and 18. In conclusion, as disclosed in Smith in the embodiments where the bell faces do not abut, is

used simply as a cover to prevent debris from falling into the joint. Further, the joints do not have pipes having smooth interior and exterior surfaces to facilitate the snaking of the trunk lines therethrough. Therefore, there would be no suggestion to modify the Smith joint with the tape as disclosed in the 3M data sheets; and the Examiner conclusion of obviousness is based on improper hindsight. The Examiner has provided no formulation of a proper obvious rejection. There is no teaching or suggestion in Smith to use tape to seal the joint. Further, the tape that is applied to the Smith versions of the pipe coupling would not require double-sided adhesive tape as required in the present invention.

Regarding U. S. Patent No. 5,961,154 issued to Williams *et al.*, the Examiner alleges that Williams teaches a coupling 20 to provide a device which can be easily and quickly affixed to a joint between two tubing sections. The Examiner alleges that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a device which can easily and quickly affix to a joint between two tubular sections as taught by Williams. Williams does not disclose a clamp over foam tape, but instead discloses a clamp over a sealant having a putty-like consistency. Further, Williams does not show or disclose a tongue extending from a clampable end of the clamping collar as required in claim 26. Neither Williams nor the other cited prior art discloses the tongue of the clampable ends of the clamp positioned directly over the overlap of tape. More importantly, Williams discloses a joint having a clamp 22 used together with slip collar 60 positioned in the interior of the pipes 68 and 70 (Figure 7). The slip collar 60 has a rib 62 which separates the two ends of the pipes 68 and 70. Therefore, the ends of the pipes 68 and 70 do not abut each other as required in the Applicant's claims and a smooth interior surface is not provided at the joint. Since the joint seal is formed internally in Smith, there

is no teaching or suggestion to include a clamp as disclosed in Williams on the underground pipes in Smith.

Regarding the 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data, there is no suggestion to combine the 3M tape as disclosed in the present invention with the pipe coupling in Smith or Williams. There is no suggestion in the 3M technical data sheets to use the double-sided adhesive tape to seal an above-ground pipe joint for a beverage distribution system. It appears that the Examiner is using the improper rationale of “obvious to try” because the prior art of the Smith and Williams gives no indication of the parameters discussed in the 3M VMB™ technical data sheets as being critical to provide a sealed joint. In fact, the joints as disclosed in Smith and Williams are formed in an entirely different manner than with tape. Smith forms the sealed joint internally and Williams uses putty adhesive. The Board is again directed to review the declaration under 37 C.F.R. § 1.132 filed on June 19, 2003 and enclosed, which detail the unexpected and superior results using the VMB™ Double Coated Acrylic Foam Tape.

European Patent ('915) to Cook is related to a field of an invention regarding automatically wrapping tape around a stack of paper banknotes. The art of wrapping paper banknotes is non-analogous to the art of sealing an overhead pipe conduit system. One having ordinary skill in the art at the time the invention was made would not look into the art of wrapping paper bank notes with a tape when researching for a means suitable for sealing an overhead pipe conduit system, and a bank would never use two-sided tape over bank notes. In fact, patent '915 to Cook only discloses bonding the ends of the tape together. The tape is not bonded directly to the banknotes. Therefore, the Examiner's

rejection of the claims is unsupported by the cited references, and reversal of the Examiner's rejection is requested.

With respect to claims 27 and 29, there is no teaching to combine the tape having the properties of the 3M VMB™ Double Coated Acrylic Foam Tape to either the Smith or Williams, *et al.* references. The qualities attributed to the 3M tape is required to connect and seal two ends of the pipes together for the application for an overhead pipe system for a fluid distribution system. Smith's use of tape is to keep out debris, not to seal. Williams discloses putty adhesive. Reversal of the Examiner's rejection of claims 27 and 29 is requested.

It is respectfully submitted that the Examiner has failed to give adequate consideration and weight to the Declaration filed on June 19, 2003. It is submitted that the Declaration sets forth specific facts and indicia of non-obviousness which have not been accorded proper consideration and weight by the Examiner. In particular, the Declaration sets forth that the Declarant has numerous years of experience in the art, and therefore, is properly considered to be an expert in the art. Further, the Declaration sets forth that as an expert in the art, the Declarant would not be taught or suggested the present invention by the references as combined in the Examiner's rejection. *Prima facie* obviousness is but a procedural mechanism allocating the burdens of going forward and persuasion as between Examiner and Applicant. Once the Applicant makes a showing of facts that rebuts the *prima facie* case, the *prima facie* inference disappears. Then the Examiner must consider all of the evidence anew and should not characterize the *prima facie* case as "strong" or "weak." An expert's affidavit or declaration of firsthand practical knowledge of unsolved needs in the art is evidence of the state of the art. See generally, In re Piasecki,

745 F.2d 1468, 223 USPQ 285 (Fed. Cir. 1984). It is submitted that the Declaration sets forth facts and other indicia of non-obviousness and overcomes the unsupported assertion of obviousness set forth in the Examiner's rejection of the claims in the present application. If given proper weight and consideration by the Examiner, it is submitted that the Declaration traverses and overcomes the Examiner's *prima facie* obviousness rejection of the claims, requiring the Examiner to come forth with further evidence of obviousness, which has not been done. Therefore, reversal of the Examiner's rejection is requested.

CONCLUSIONS

For the reasons stated above, it is respectfully submitted that Appellants' invention is set forth in claims 12-14, 25-27 and 29-30 are distinguished from the prior art. As such, it is respectfully submitted that the Examiner's final rejection of claims 12-14, 25-27 and 29-30 is erroneously based and its reversal is respectfully requested.

No oral hearing is requested.

Appellants' attorney's check in the amount of \$170.00 is enclosed to cover the Appeal Brief filing fee.

If any changes or fees must be paid in connection with the following communication, they may be paid out of our Deposit Account No. 22-0115.

This Appeal Brief is being filed in triplicate, including one original and two copies.

Respectfully submitted,

YOUNG & BASILE, P.C.

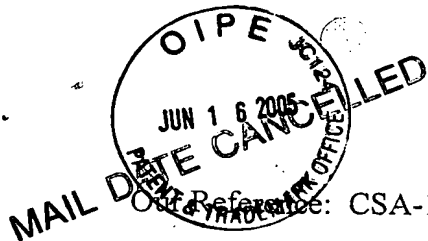
A handwritten signature in cursive script, reading "Darlene P. Condra", positioned above a horizontal line.

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Dated: June 13, 2005

DPC/lkl



Office Reference: CSA-101-B

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Henry Colombo and Bernard M. Licata
Serial Number: 10/039,805
Filing Date: October 19, 2001
Examiner/Art Group Unit: Dunwoody, Aaron M./3679
Title: METHOD AND APPARATUS FOR
FORMING LEAK-PROOF COUPLING FOR
BEVERAGE DISTRIBUTION SYSTEM

DECLARATION UNDER 37 C.F.R. §1.132

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Henry Colombo, do hereby declare that:

1. I am one of the inventors of U. S. Patent Application Serial No. 10/039,805.
2. I am President of Colombo Sales and Engineering, Inc. which provides pneumatic tube systems for business and industry, and beverage chase systems for the beverage and food service industries.
3. I have over forty (40) years experience in the design, development, manufacture and installation of pneumatic tube systems and related tubing and piping technology. Further, I have had experience with the beverage and food service industry for the past five (5) years.
4. Beverage chase systems are products designed and developed specifically for the beverage and food service industry. The "Beverage Chase" is the pathway or chase-way or conduit, through which a "bundle" of plastic and/or copper

beverage or food lines" that deliver beer, soda and other liquid edible products from a remote storage facility to the service area or point of use, are pulled.

5. The beverage and food service industries require the interior surface of the chase or conduits to be smooth. Most critical is the interior surface of the joint or join connecting together two aligned conduits or chase components that must also provide an interior surface that is smooth and uninterrupted by any obstruction for the pull through of these bundles of lines.

6. The joints or joins must be strong enough to bear the pull of the "bundle of plastic and/or copper beverage lines" that can reach a length of as little as twenty (20) feet to over one thousand (1,000) feet. These bundles of lines impose a significant stress on the 'beverage chase' through which they are pulled. The joints or joins must remain leakproof after the imposition of this significant applied stress.

7. I have reviewed U. S. Patent No. 5,505,497 issued to Shea et al. on April 9, 1996 for a mechanical joint connection for fiberglass reinforced duct sections, which was brought to the attention of my attorney during an Examiner interview on May 8, 2003.

8. The reference '497 specifically states in Column 5, Lines 5 - 16, that a gasket member fit over the ends of the duct sections which are coated with a Novolac resin, a high cross-link density ceramic-filled coating. The gasket flanges protrude inside the joined fiberglass reinforced duct sections.

9. The reference '497 specifically states in Column 6, Lines 18 - 30, that the gasket member may be replaced with a relatively heavy layer of Novolac resin which may be applied in layers.

10. The reference '497 discloses either a gasket portion or a thick layer of Novolac resin which extends into the interior of the conduit.

11. Accordingly, the joint connection of reference '497 does not provide a smooth interior surface.

12. Further, Novolac is a 100% solid epoxy product that is coated onto the duct ends and which is messy and more labor intensive to install at a field installation or construction site, because Novolac is a liquid, two-part epoxy that must be mixed in the proper proportions, and possibly with other materials such as ceramic powder or glass beads and applied. Also, Novolac may optionally be applied in multiple layers for certain applications.

13. The claimed invention uses a pre-cut double-sided (double-coated) adhesive closed cell acrylic foam tape that is applied only to the exterior surfaces of the conduits or chase components thus maintaining a smooth interior surface of the conduits at the joints. The pre-cut, double-sided (double-coated) adhesive, closed cell, acrylic foam tape simplifies installation and reduces field labor and costs.

14. The claimed invention uses a double-sided (double-coated) adhesive, closed cell acrylic foam tape that provides a tensile strength at 80 - 110 lbs/in² to allow bundle pull-through without physical damage to the joint.

15. The claimed invention uses a double-sided (double-coated) adhesive, closed cell acrylic foam tape that provides a static sheer of at least 1000 grams at 72° and 500 grams at 150°F.

16. The claimed invention uses a double-sided (double-coated) adhesive, closed cell acrylic foam tape that allows installation of the joints at temperatures as low as 32°F.

17. The claimed invention uses a double-sided (double-coated) adhesive, closed cell acrylic foam tape that provides a leak-proof seal.

18. Items 14 - 17 are supported in the attached Technical Data Sheets of the VHB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes by 3M Company.

19. The use of the double-sided (double-coated) closed cell acrylic foam tape has provided unexpected and superior results during installation of the beverage conduit, wherein the joints withstood approximately 3000 lbs. of pull pressure without damage.

20. The claimed invention enjoys commercial success as evident in the attached 3M Industrial Adhesives and Tapes Case Study titled: Unique Leak-proof Beverage Conduit With Easy Assembly and Smooth Pull Through for Fluid Lines.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

By:


HENRY COLOMBO

Date:

6-17-03



AF
I#W
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PATENT

Reference: CSA-101-B

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Title: METHOD AND APPARATUS FOR
FORMING LEAK-PROOF COUPLING FOR
BEVERAGE DISTRIBUTION SYSTEM

CERTIFICATE OF MAILING AND TRANSMITTAL LETTER

3

MS APPEAL BRIEFS
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted with this document is a Postcard; an Appeal Brief and Appendix A (in triplicate).

- X A check in the amount of \$170.00 is attached.
- X Please charge any deficiency or credit any excess in the enclosed fees to Deposit Number 25-0115.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on June 13, 2005.

Respectfully submitted,

YOUNG & BASILE, P.C.

Darlene P. Condra

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